Amendments to the claims

Listing of claims:

1-15. Canceled.

16. (Currently amended) A compound of formula (I) or a pharmaceutically acceptable derivative salt and/or N-oxide thereof:

wherein:

RV and RW are hydrogen or RV and RW together are a bond;

R^A is an optionally substituted bicyclic carbocyclic or heterocyclic ring system of structure:

$$\begin{array}{c|c}
Z^3 \\
(x) & Z^4 \\
Z^1 & Z^5 & Z^2
\end{array}$$

containing 0-3 heteroatoms in each ring in which:

at least one of rings (x) and (y) is aromatic; one of Z^4 and Z^5 is C or N and the other is C; Z^3 is N, NR¹³, O, S(O)_x, CO, CR¹ or CR¹R^{1a};

 Z^1 and Z^2 are independently a 2 or 3 atom linker group each atom of which is independently selected from N, NR¹³, O, S(O)_X, CO, CR¹ and CR¹R^{1a}; such that each ring is independently substituted with 0-3 groups R¹ and/or R^{1a};

 R^1 and R^{1a} are independently selected from hydrogen; hydroxy; (C_{1-6}) alkoxy optionally substituted by (C_{1-6}) alkoxy, amino, piperidyl, guanidino or amidino any of which is optionally N-substituted by one or two (C_{1-6}) alkyl, acyl or (C_{1-6}) alkylsulphonyl groups, CONH2, hydroxy, (C_{1-6}) alkylthio, heterocyclylthio, heterocyclyloxy, arylthio, aryloxy, acylthio, acyloxy or (C_{1-6}) alkylsulphonyloxy; (C_{1-6}) alkoxy-substituted (C_{1-6}) alkyl; hydroxy (C_{1-6}) alkyl; halogen; (C_{1-6}) alkyl; ((C_{1-6}) alkylthio; trifluromethyl; trifluromethoxy; cyano; carboxy; nitro; azido; acyl; acyloxy; acylthio; (C_{1-6}) alkylsulphonyl; (C_{1-6}) alkylsulphoxide; arylsulphonyl; arylsulphoxide or

an amino, piperidyl, guanidino or amidino group optionally N-substituted by one or two (C_{1-6})alkyl, acyl or (C_{1-6})alkylsulphonyl groups, or when Z^3 and the adjacent atom are CR^1 and CR^{1a} , R^1 and R^{1a} may together represent (C_{1-2})alkylenedioxy,

provided that R¹ and R^{1a}, on the same carbon atom are not both optionally substituted hydroxy or amino;

provided that

(i) when RA is optionally substituted quinolin-4-yl:

it is unsubstituted in the 6-position; or

it is substituted by at least one hydroxy (C₁₋₆)alkyl, cyano or carboxy group at the 2-, 5-,

6-, 7- or 8-position; or

it is substituted by at least one trifluoromethoxy group; or

R³ is halogen;

(ii) when R^A is optionally substituted quinazolin-4-yl, cinnolin-4-yl, 1,5-naphthyridin-4-yl, 1,7-naphthyridin-4-yl or 1,8-naphthyridin-4-yl:

it is substituted by at least one hydroxy (C_{1-6})alkyl, cyano or carboxy group at the 2-, 5-, 6-, 7- or 8-position as available; or

it is substituted by at least one trifluoromethoxy group; or R^3 is halogen;

 R^2 is hydrogen, or (C_{1-4}) alkyl or (C_{2-4}) alkenyl optionally substituted with 1 to 3 groups selected from:

amino optionally substituted by one or two (C_{1-4})alkyl groups; carboxy; (C_{1-4})alkoxycarbonyl; (C_{1-4})alkylcarbonyl; (C_{2-4})alkenyloxycarbonyl; (C_{2-4})alkenylcarbonyl; aminocarbonyl wherein the amino group is optionally substituted by hydroxy, (C_{1-4})alkyl, hydroxy(C_{1-4})alkyl, aminocarbonyl(C_{1-4})alkyl, (C_{2-4})alkenyl, (C_{1-4})alkylsulphonyl, trifluoromethylsulphonyl, (C_{2-4})alkenylsulphonyl, (C_{1-4})alkoxycarbonyl, (C_{1-4})alkylcarbonyl, (C_{2-4})alkenyloxycarbonyl or (C_{2-4})alkenylcarbonyl; cyano; tetrazolyl; 2-oxo-oxazolidinyl optionally substituted by R¹⁰; 3-hydroxy-3-cyclobutene-1,2-dione-4-yl; 2,4-thiazolidinedione-5-yl; tetrazol-5-ylaminocarbonyl; 1,2,4-triazol-5-yl optionally substituted by R¹⁰; 5-oxo-1,2,4-oxadiazol-3-yl; halogen; (C_{1-4})alkylthio; trifluoromethyl; hydroxy optionally substituted by (C_{1-4})alkyl, (C_{2-4})alkenyl, (C_{1-4})alkylcarbonyl, (C_{1-4})alkylcarbonyl, (C_{1-4})alkylsulphonyl; (C_{2-4})alkenylsulphonyl; or (C_{1-4})alkenylsulphonyl wherein the amino group is optionally substituted by (C_{1-4})alkyl or (C_{2-4})alkenyl;

R³ is hydrogen; or

when R^V and R^W are a bond, R^3 is in the 2-, 3- or 4- position and when R^V and R^W are not a bond, R^3 is in the 1-, 2-, 3- or 4-position and R^3 is:

carboxy; (C_{1-6}) alkoxycarbonyl; aminocarbonyl wherein the amino group is optionally substituted by hydroxy, (C_{1-6}) alkyl, hydroxy (C_{1-6}) alkyl, aminocarbonyl (C_{1-6}) alkyl, (C_{2-6}) alkenyl, (C_{1-6}) alkylsulphonyl, trifluoromethylsulphonyl, (C_{2-6}) alkenylsulphonyl, (C_{1-6}) alkoxycarbonyl, (C_{1-6}) alkylcarbonyl, (C_{2-6}) alkenyloxycarbonyl or (C_{2-6}) alkenylcarbonyl and optionally further substituted by (C_{1-6}) alkyl, hydroxy (C_{1-6}) alkyl, aminocarbonyl (C_{1-6}) alkyl or (C_{2-6}) alkenyl; cyano; tetrazolyl; 2-oxo-oxazolidinyl optionally substituted by (C_{1-6}) alkyl, and (C_{1-6}) alkyl or (C_{2-6}) alkenyl; cyano; tetrazolyl; 2-oxo-oxazolidinyl optionally substituted by (C_{1-6}) alkyl, aminocarbonyl; 3-hydroxy-3-cyclobutene-1,2-dione-4-yl; 2,4-thiazolidinedione-5-yl; tetrazol-5-ylaminocarbonyl; 1,2,4-triazol-5-yl optionally substituted by (C_{1-6}) alkyl, or 5-oxo-1,2,4-oxadiazol-3-yl; or

 (C_{1-4}) alkyl or ethenyl optionally substituted with any of the groups listed above for R^3 and/or 0 to 2 groups R^{12} independently selected from:

halogen; (C₁₋₆)alkylthio; trifluoromethyl; (C₁₋₆)alkoxycarbonyl; (C₁₋₆)alkylcarbonyl; (C₂₋₆)alkenyloxycarbonyl; (C₂₋₆)alkenyloxycarbonyl; (C₂₋₆)alkenyloxycarbonyl; (C₂₋₆)alkenyloxycarbonyl, (C₁₋₆)alkylcarbonyl, (C₂₋₆)alkenyloxycarbonyl, (C₁₋₆)alkylcarbonyl, (C₂₋₆)alkenyloxycarbonyl, (C₂₋₆)alkenyloxycarbonyl, (C₂₋₆)alkenyloxycarbonyl, (C₁₋₆)alkylcarbonyl or aminocarbonyl wherein the amino group is optionally substituted by (C₁₋₆)alkyl, (C₂₋₆)alkenyl, (C₁₋₆)alkylcarbonyl, (C₂₋₆)alkenyloxycarbonyl, (C₂₋₆)alkenyloxycarbonyl, (C₂₋₆)alkenyloxycarbonyl, (C₂₋₆)alkenyloxycarbonyl, (C₂₋₆)alkenyloxycarbonyl, (C₂₋₆)alkenyloxycarbonyl, (C₂₋₆)alkenyloxycarbonyl or aminocarbonyl wherein the amino group is optionally substituted by (C₁₋₆)alkyl, hydroxy(C₁₋₆)alkyl, aminocarbonyl(C₁₋₆)alkyl, (C₂₋₆)alkenyl, (C₁₋₆)alkoxycarbonyl, (C₁₋₆)alkylcarbonyl, (C₂₋₆)alkenyloxycarbonyl or (C₂₋₆)alkenylcarbonyl and optionally further substituted by (C₁₋₆)alkyl, hydroxy(C₁₋₆)alkyl, hydroxy(C₁₋₆)alkyl, aminocarbonyl(C₁₋₆)alkyl or (C₂₋₆)alkenyl; oxo; (C₁₋₆)alkylsulphonyl; (C₂₋₆)alkenylsulphonyl; or (C₁₋₆)alkyl or (C₂₋₆)alkenyl; oxo; (C₁₋₆)alkylsulphonyl; or (C₁₋₆)alkenyl; or (C₁₋₆)alkenyl; or

hydroxy optionally substituted by (C₁₋₆)alkyl, (C₂₋₆)alkenyl, (C₁₋₆)alkoxycarbonyl, (C₁₋₆)alkylcarbonyl, (C₂₋₆)alkenyloxycarbonyl, (C₂₋₆)alkenyloxybonyl or aminocarbonyl wherein the amino group is optionally substituted by (C₁₋₆)alkyl, (C₂₋₆)alkenyl, (C₁₋₆)alkylcarbonyl or (C₂₋₆)alkenyloxybonyl; or

amino optionally mono- or disubstituted by (C_{1-6}) alkoxycarbonyl, (C_{1-6}) alkylcarbonyl, (C_{2-6}) alkenyloxycarbonyl, (C_{2-6}) alkenyloxycarbonyl, (C_{1-6}) alkylsulphonyl,

 (C_{2-6}) alkenylsulphonyl or aminocarbonyl wherein the amino group is optionally substituted by (C_{1-6}) alkyl or (C_{2-6}) alkenyl; or

halogen;

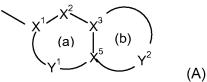
provided that when R^3 is in the 4- position it is not optionally substituted hydroxyl or amino or halogen;

in addition when R³ is disubstituted with a hydroxy or amino containing substituent and a carboxy containing substituent these may optionally together form a cyclic ester or amide linkage, respectively;

R¹⁰ is selected from (C₁₋₄)alkyl and (C₂₋₄)alkenyl either of which may be optionally substituted by a group R¹² as defined above; carboxy; aminocarbonyl wherein the amino group is optionally substituted by hydroxy, (C₁₋₆)alkyl, (C₂₋₆)alkenyl, (C₁₋₆)alkylsulphonyl, trifluoromethylsulphonyl, (C₂₋₆)alkenylsulphonyl, (C₁₋₆)alkoxycarbonyl, (C₁₋₆)alkylcarbonyl and optionally further substituted by (C₁₋₆)alkyl or (C₂₋₆)alkenyl; (C₁₋₆)alkylsulphonyl; trifluoromethylsulphonyl; (C₂₋₆)alkenylsulphonyl; (C₁₋₆)alkoxycarbonyl; (C₁₋₆)alkylcarbonyl; (C₂₋₆)alkenyloxycarbonyl; and (C₂₋₆)alkenylcarbonyl;

R⁴ is a group -CH₂-R⁵₁ in which R⁵₁ is selected from:

 R^4 is a group $-U-R^5_2$ where R^5_2 is an optionally substituted bicyclic carbocyclic or heterocyclic ring system (A):



containing up to four heteroatoms in each ring in which <u>ring (a) is aromatic and ring (b) is non-aromatic;</u>

at least one of rings (a) and (b) is aromatic;

X¹ is C or N when part of an aromatic ring or CR¹⁴ when part of a non aromatic ring;

X² is N, NR¹³, O, S(O)_X, CO or CR¹⁴ when part of an aromatic or non-aromatic ring or may in addition be CR¹⁴R¹⁵ when part of a non aromatic ring;

X³ and X⁵ are independently N or C;

Y¹ is a [[0 to 4]] <u>2</u> atom linker group <u>having N bonded to X¹ and CR¹⁴ bonded to said N</u> and to X⁵; each atom of which is independently selected from N, NR¹³, O, S(O)_X, CO and CR¹⁴ when part of an aromatic or non-aromatic ring or may additionally be CR¹⁴R¹⁵ when part of a non aromatic ring,

Y² is a 2 to 6 <u>4</u> atom linker group, <u>having O bonded to X³, O bonded to X⁵, and in which the other atoms are CR¹⁴R¹⁵; each atom of Y²-being independently selected from N, NR¹³, O, S(O)_X, CO and CR¹⁴-when part of an aromatic or non-aromatic ring or may additionally be CR¹⁴R¹⁵-when part of a non aromatic ring;</u>

each of R¹⁴ and R¹⁵ is independently selected from: H; (C_{1-4}) alkylthio; halo; carboxy(C_{1-4})alkyl; halo(C_{1-4})alkoxy; halo(C_{1-4})alkyl; (C_{1-4})alkyl; (C_{2-4})alkenyl; (C_{1-4})alkenyl; (C_{1-4})alkoxycarbonyl; formyl; (C_{1-4})alkylcarbonyl; (C_{2-4})alkenyloxycarbonyl; (C_{2-4})alkenyloxycarbonyl; (C_{1-4})alkylcarbonyloxy; (C_{1-4})alkoxycarbonyl(C_{1-4})alkyl; hydroxy; hydroxy(C_{1-4})alkyl; mercapto(C_{1-4})alkyl; (C_{1-4})alkoxy; nitro; cyano; carboxy; amino or aminocarbonyl optionally substituted as for corresponding substituents in R³; (C_{1-4})alkylsulphonyl; (C_{2-4})alkenylsulphonyl; or aminosulphonyl wherein the amino group is optionally substituted by (C_{1-4})alkyl or (C_{2-4})alkenyl; aryl(C_{1-4})alkyl; aryl(C_{1-4})alkoxy;

each R¹³ is independently H; trifluoromethyl; (C_{1-4}) alkyl optionally substituted by hydroxy, carboxy, (C_{1-6}) alkoxycarbonyl, (C_{1-6}) alkoxy, (C_{1-6}) alkylthio, halo or trifluoromethyl; (C_{2-4}) alkenyl; aryl; aryl (C_{1-4}) alkyl; arylcarbonyl; heteroarylcarbonyl; (C_{1-4}) alkoxycarbonyl; (C_{1-4}) alkylcarbonyl; formyl; (C_{1-6}) alkylsulphonyl; or aminocarbonyl wherein the amino group is optionally substituted by (C_{1-4}) alkoxycarbonyl, (C_{1-4}) alkylcarbonyl, (C_{2-4}) alkenylcarbonyl, (C_{2-4}) alkenylcarbonyl, (C_{2-4}) alkenyl and optionally further substituted by (C_{1-4}) alkyl or (C_{2-4}) alkenyl;

each x is independently 0, 1 or 2;

U is CO, SO2 or CH2; or

 R^4 is a group - X^{13} - X^{23} - X^{33} - X^{43} in which: X^{13} is CH_2 , CO or SO_2 ;

x^{2a} is CR^{14a}R^{15a}.

X^{3a} is NR^{13a}, O, S, SO₂ or CR^{14a}R^{15a}; wherein: each of R^{14a} and R^{15a} is independently selected from the groups listed above for R¹⁴ and R¹⁵, provided that R^{14a} and R^{15a} on the same carbon atom are not both selected from optionally substituted hydroxy and optionally substituted amino; or R^{14a} and R^{15a} together represent oxo; R^{13a} is hydrogen; trifluoromethyl; (C_{1-6}) alkyl; (C_{2-6}) alkenyl; (C_{1-6}) alkoxycarbonyl; (C₁₋₆)alkylcarbonyl; or aminocarbonyl wherein the amino group is optionally substituted by (C₁₋₆) 6)alkoxycarbonyl, (C₁₋₆)alkylcarbonyl, (C₂₋₆)alkenyloxycarbonyl, (C₂₋₆)alkenylcarbonyl, (C₁₋₆ 6)alkyl or (C2-6)alkenyl and optionally further substituted by (C1-6)alkyl or (C2-6)alkenyl; or two R^{14a} groups or an R^{13a} and an R^{14a} group on adjacent atoms together represent a bond and the remaining R¹³³. R¹⁴³ and R¹⁵³ groups are as above defined; or two R^{14a} groups and two R^{15a} groups on adjacent atoms together represent bonds such that X^{2a} and X^{3a} is triple bonded: X^{4a} is phenyl or C or N linked monocyclic aromatic 5- or 6-membered heterocycle containing up to four heteroatoms selected from O, S and N and: optionally C-substituted by up to three groups selected from (C₁₋₄)alkylthio; halo; carboxy(C₁₋₄)alkyl; halo(C₁₋₄)alkoxy; halo(C₁₋₄)alkyl; (C₁₋₄)alkyl; (C₂₋₄)alkenyl; (C₁₋₄)alkoxycarbonyl; formyl; (C₁₋₄)alkylcarbonyl; (C2-4)alkenyloxycarbonyl; (C2-4)alkenylcarbonyl; (C1-4)alkylcarbonyloxy; (C1-4)alkoxycarbonyl(C₁₋₄)alkyl; hydroxy; hydroxy(C₁₋₄)alkyl; mercapto(C₁₋₄)alkyl; (C₁₋₄)alkoxy; nitro; cyano; carboxy; amino or aminocarbonyl optionally substituted as for corresponding $substituents \ in \ R^3; \ (C_{1_4}) alky | sulphony|; \ (C_{2_4}) alkenyl sulphony|; \ or \ aminosulphonyl \ wherein \ the$ amino group is optionally substituted by (C₁₋₄)alkyl or (C₂₋₄)alkenyl; aryl, aryl(C₁₋₄)alkyl or aryl(C₁₋₄)alkoxy; and optionally N substituted by trifluoromethyl; (C₁₋₄)alkyl optionally substituted by hydroxy, (C₁₋₄ 6)alkoxy, (C1-6)alkylthio, halo or trifluoromethyl; (C2-4)alkenyl; aryl; aryl(C1-4)alkyl; (C1-4)alkoxycarbonyl; (C₁₋₄)alkylcarbonyl; formyl; (C₁₋₆)alkylsulphonyl; or aminocarbonyl wherein the amino group is optionally substituted by (C₁₋₄)alkoxycarbonyl, (C₁₋₄)alkylcarbonyl, (C₂₋ 4)alkenyloxycarbonyl, (C2-4)alkenylcarbonyl, (C1-4)alkyl or (C2-4)alkenyl and optionally further substituted by (C₁₋₄)alkyl or (C₂₋₄)alkenyl;

n is 0 or 1 and AB is NR¹¹CO, CONR¹¹, CO-CR⁸R⁹, CR⁶R⁷-CO, O-CR⁸R⁹, CR⁶R⁷-O , NHR¹¹-CR⁸R⁹, CR⁶R⁷- NHR¹¹, NR¹¹SO₂, CR⁶R⁷-SO₂ or CR⁶R⁷-CR⁸R⁹, provided that when R^V and R^W are a bond and n=0, B is not NR¹¹ , O or SO₂, or n is 0 and AB is NH-CO-NH or NH-CO-O and R^V/R^W are not a bond; or n is 0 and AB is CR⁶R⁷SO₂NR², CR⁶R⁷CONR² or CR⁶R⁷CH₂NR² and R^V/R^W are not a bond;

provided that R^6 and R^7 , and R^8 and R^9 are not both optionally substituted hydroxy or amino; and wherein:

each of R^6 , R^7 , R^8 and R^9 is independently selected from: H; (C_{1-6}) alkoxy; (C_{1-6}) alkylthio; halo; trifluoromethyl; azido; (C_{1-6}) alkyl; (C_{2-6}) alkenyl; (C_{1-6}) alkoxycarbonyl; (C_{1-6}) alkylcarbonyl; (C_{2-6}) alkenyloxycarbonyl; (C_{2-6}) alkenyloxycarbonyl; hydroxy, amino or aminocarbonyl optionally substituted as for corresponding substituents in R^3 ; (C_{1-6}) alkylsulphonyl; (C_{2-6}) alkenylsulphonyl; or (C_{1-6}) aminosulphonyl wherein the amino group is optionally substituted by (C_{1-6}) alkyl or (C_{2-6}) alkenyl; or R^6 and R^8 together represent a bond and R^7 and R^9 are as above defined;

and each R^{11} is independently H; trifluoromethyl; (C_{1-6}) alkyl; (C_{2-6}) alkenyl; (C_{1-6}) alkoxycarbonyl; (C_{1-6}) alkylcarbonyl; or aminocarbonyl wherein the amino group is optionally substituted by (C_{1-6}) alkoxycarbonyl, (C_{1-6}) alkylcarbonyl, (C_{2-6}) alkenylcarbonyl, (C_{1-6}) alkyl or (C_{2-6}) alkenyl and optionally further substituted by (C_{1-6}) alkyl or (C_{2-6}) alkenyl;

or where one of R^3 and R^6 , R^7 , R^8 or R^9 contains a carboxy group and the other contains a hydroxy or amino group they may together form a cyclic ester or amide linkage or where R^3 contains a carboxy group and A or B is NH they may be condensed to form a cyclic amide.

- 17. (Previously presented) A compound according to claim 16 wherein R^A is optionally substituted isoquinolin-5-yl, quinolin-8-yl, thieno[3,2-b]pyridin-7-yl, 2,3-dihydro-[1,4]dioxino[2,3-b]pyridin-8-yl, quinoxalin-5-yl, isoquinolin-8-yl, [1,6]-naphthyridin-4-yl, 1,2,3,4-tetrahydroquinoxalin-5-yl or 1,2-dihydroisoquinoline-8-yl.
- 18. (Previously presented) A compound according to claim 16 wherein R¹ is hydrogen, methoxy, methyl, cyano or halogen and R^{1a} is H.
- 19. (Previously presented) A compound according to claim 16 wherein R² is hydrogen.
- 20. (Previously presented) A compound according to claim 16 wherein \mathbb{R}^3 is hydrogen, fluoro or hydroxy substituted in the 1-or 3-position.
- 21. (Previously presented) A compound according to claim 16 wherein n is 0 and either A and B are both CH₂, A is CHOH or CH₂ and B is CH₂ or A is NH and B is CO.

22. Canceled.

23. (Currently amended) A compound according to claim 16 wherein R⁵₂ is selected from:3-oxo-3,4-dihydro-2H-pyrido[3,2-b][1,4]oxazin-6-yl 3-oxo-3,4-dihydro-2H-pyrido[3,2-b][1,4]thiazin-6-yl 7-chloro-3-oxo-3,4-dihydro-2H-pyrido[3,2-b][1,4]thiazin-6-yl 7-fluoro-3-oxo-3,4-dihydro-2H-pyrido[3,2-b][1,4]thiazin-6-yl 2,3-dihydro-[1,4]dioxino[2,3-c]pyridin-7-yl.

24. (Currently amended) A compound selected from:

1-Hydroxy-t-4-[(3-oxo-3,4-dihydro-2H-pyrido[3,2-b][1,4]thiazin-6-ylmethyl)-amino]-r-cyclohexanecarboxylic acid thieno[3,2-b]pyridin-7-ylamide

1-Hydroxy-t-4-[(3-oxo-3,4-dihydro-2H -pyrido[3,2-b][1,4]thiazin-6-ylmethyl)-amino]-reyclohexanecarboxylic acid (2,3-dihydro-[1,4]dioxino[2,3-b]pyridin-8-yl)-amide trans-4-[(3-Oxo-3,4-dihydro-2H-pyrido[3,2-b][1,4]thiazin-6-ylmethyl)-amino]-eyclohexanecarboxylic acid quinolin-4-ylamide

trans-4-[(3-Oxo-3,4-dihydro-2H-benzo[1,4]thiazin-6-ylmethyl)-amino]-cyclohexanecarboxylic acid isoquinolin-5-ylamide

1-Hydroxy-t-4-[(3-oxo-3,4-dihydro-2H-pyrido[3,2-b][1,4]thiazin-6-ylmethyl)-amino]-recyclohexanecarboxylic acid (2-methoxy-quinolin-8-yl)-amide

4-[(3,4-Dihydro-2H-pyrido[3,2-b][1,4]thiazin-6-ylmethyl)-amino]-1-hydroxy-cyclohexanecarboxylic acid (2-methoxy-quinolin-8-yl)-amide

6-({4-Hydroxy-4-[2-(2-methoxy-quinolin-8-yl)-ethyl]-cyclohexylamino}-methyl)-4H-pyrido[3,2-b][1,4]oxazin-3-one

6-({4-Hydroxy-4-[2-(2-methoxy-quinolin-8-yl)-ethyl]-cyclohexylamino}-methyl)-4H-pyrido[3,2-b][1,4]thiazin-3-one

(1R,3S,4R)-3-Hydroxy-4-[(3-oxo-3,4-dihydro-2H -pyrido[3,2-b][1,4]oxazin-6-ylmethyl)-amino]-cyclohexanecarboxylic acid (2-cyano-quinolin-8-yl)-amide 1-Hydroxy-t-4-[(3-oxo-3,4-dihydro-2H-pyrido[3,2-b][1,4]thiazin-6-ylmethyl)-amino]-r-cyclohexanecarboxylic acid (2-cyano-quinolin-8-yl)-amide 1-Hydroxy-t-4-[(3-oxo-3,4-dihydro-2H-pyrido[3,2-b][1,4]oxazin-6-ylmethyl)-amino]-r-cyclohexanecarboxylic acid (2-cyano-quinolin-8-yl)-amide(1S,3R,4S)-3-Hydroxy-4-[(3-oxo-3,4-dihydro-2H-pyrido[3,2-b][1,4]thiazin-6-ylmethyl)-amino]-cyclohexanecarboxylic acid (2-cyano-quinolin-8-yl)-amide

(1S,3R,4S)-3-Hydroxy-4-[(3-oxo-3,4-dihydro-2H-pyrido[3,2-b][1,4]oxazin-6-ylmethyl)-amino]cyclohexanecarboxylic acid (2-cyano-quinolin-8-yl)-amide (1R.3R.4R)-3-Hydroxy-4-[(3-oxo-3,4-dihydro-2H-pyrido[3,2-b][1,4]thiazin-6-ylmethyl)-amino]cyclohexanecarboxylic acid (2-cyano-quinolin-8-yl)-amide (1R,3R,4R)-3-Hydroxy-4-[(3-oxo-3,4-dihydro-2H-pyrido[3,2-b][1,4]thiazin-6-ylmethyl)-amino]cyclohexanecarboxylic acid (2-cyano-quinolin-8-yl)-amide (1R,3S,4R)-3-Hydroxy-4-[(3-oxo-3,4-dihydro-2H-pyrido[3,2-b][1,4]thiazin-6-ylmethyl)-amino]cyclohexanecarboxylic acid (2-cyano-quinolin-8-yl)-amide 1-Hydroxy-t-4-[(3-oxo-3,4-dihydro-2Hpyrido[3,2-b][1,4]oxazin-6-ylmethyl)-amino]-r-cyclohexanecarboxylic acid (2-methoxy-quinolin-8yl)-amide1-Hydroxy-t-4-[(3-oxo-3,4-dihydro-2H-pyrido[3,2-b][1,4]oxazin-6-ylmethyl)-amino]-rcyclohexanecarboxylic acid (2-methyl-quinolin-8-yl)-amide 1-Hydroxy-t-4-[(3-oxo-3,4-dihydro-2H-pyrido[3,2-b][1,4]thiazin-6-ylmethyl)-amino]-rcyclohexanecarboxylic acid (2-methyl-quinolin-8-yl)-amide (1R,3R,4R)-3-Hydroxy-4-[(3-oxo-3,4-dihydro-2H-pyrido[3,2-b][1,4]thiazin-6-ylmethyl)-amino]cyclohexanecarboxylic acid (2-methoxy-quinolin-8-yl)-amide 7-(\{r-4-Hydroxy-4-\frac{12-(2-methoxy-quinolin-8-yl)-ethyl\rbance-cyclohexylamino\rbance-methyl\rbance-1H-pyrido\frac{12-\frac{12-(2-methoxy-quinolin-8-yl)-ethyl\rbance-cyclohexylamino\rbance-methyl\rbance-1H-pyrido\frac{12-\frac{12-(2-methoxy-quinolin-8-yl)-ethyl\rbance-cyclohexylamino\rbance-methyl\rbance-1H-pyrido\frac{12-\frac{12-(2-methoxy-quinolin-8-yl)-ethyl\rbance-cyclohexylamino\rbance-methyl\rbance-1H-pyrido\frac{12-\frac{12-(2-methoxy-quinolin-8-yl)-ethyl\rbance-cyclohexylamino\rbance-methyl\rbance-1H-pyrido\frac{12-\frac{12-(2-methoxy-quinolin-8-yl)-ethyl\rbance-cyclohexylamino\rbance-methyl\rbance-1H-pyrido\frac{12-\frac{12-(2-methoxy-quinolin-8-yl)-ethyl\rbance-cyclohexylamino\rbance-methyl\rbance-1H-pyrido\frac{12-\frac{12-(2-methoxy-quinolin-8-yl)-ethyl\rbance-cyclohexylamino\rbance-methyl\rbance-1H-pyrido\frac{12-\frac{12-(2-methoxy-quinolin-8-yl)-ethyl\rbance-cyclohexylamino\rbance-methyl\rbance-1H-pyrido\frac{12-\frac{12-(2-methoxy-quinolin-8-yl)-ethyl\rbance-cyclohexylamino\rbance-methyl\rbance-1H-pyrido\frac{12-\frac{12-(2-methoxy-quinolin-8-yl)-ethyl\rbance-cyclohexylamino\rbance-methyl\rbance-1H-pyrido\frac{12-\frac{12-(2-methoxy-quinolin-8-yl)-ethyl\rbance-cyclohexylamino\rbance-methyl\rbance-1H-pyrido\frac{12-\frac{12-(2-methoxy-quinolin-8-yl)-ethyl\rbance-cyclohexylaminolin-8-yl\rbance-methyl\rbance-methyl\rbance-1H-pyrido\frac{12-\frac{12-(2-methoxy-quinolin-8-yl)-ethyl\rbance-methyl\rbance-methyl\rbance-methyl\rbance-1H-pyrido\frac{12-\frac{12-(2-methoxy-quinolin-8-yl)-ethyl\rbance-methyl b][1,4]thiazin-2-one 1-Hydroxy-t-4-[(2-oxo-2,3-dihydro-1H-pyrido[3,4-b][1,4]oxazin-7-ylmethyl)-amino]-rcyclohexanecarboxylic acid (2-methyl-quinolin-8-yl)-amide t-4-[(7-Fluoro-3-oxo-3,4-dihydro-2H-pyrido[3,2-b][1,4]thiazin-6-ylmethyl)-amino]-1-hydroxy-rcyclohexanecarboxylic acid (2-methoxy-quinolin-8-yl)-amide t-4-[(7-Chloro-3-oxo-3,4-dihydro-2H-pyrido[3,2-b][1,4]thiazin-6-ylmethyl)-amino]-1-hydroxy-rcyclohexanecarboxylic acid (2-methoxy-quinolin-8-yl)-amide 1-Hydroxy-t-4-[(3-oxo-3,4-dihydro-2H-pyrido[3,2-b][1,4]thiazin-6-ylmethyl)-amino]-rcyclohexanecarboxylic acid (3-methyl-quinoxalin-5-yl)-amide 1-Hvdroxv-t-4-[(3-oxo-3.4-dihydro-2H-pyrido[3.2-b][1.4]thiazin-6-ylmethyl)-aminol-rcyclohexanecarboxylic acid (2-methyl-1-oxo-1,2-dihydro-isoquinolin-8-yl)-amide 1-Hydroxy-t-4-[(3-oxo-3,4-dihydro-2H-pyrido[3,2-b][1,4]thiazin-6-ylmethyl)-amino]-rcyclohexanecarboxylic acid (1-methoxy-isoquinolin-8-yl)-amide 1-Hydroxy-t-4-[(3-oxo-3,4-dihydro-2H-pyrido[3,2-b][1,4]thiazin-6-ylmethyl)-amino]-rcyclohexanecarboxylic acid (5-methoxy-quinolin-4-yl)-amide 1-Hvdroxy-t-4-[(3-oxo-3,4-dihydro-2H -pyrido[3,2-b][1,4]oxazin-6-ylmethyl)-amino]-rcyclohexanecarboxylic acid [1,6]naphthyridin-4-ylamide 1-Hydroxy-t-4-[(3-oxo-3,4-dihydro-2H-pyrido[3,2-b][1,4]thiazin-6-ylmethyl)-aminol-rcyclohexanecarboxylic acid (2-methyl-quinoxalin-5-yl)-amide

(1R,3S,4R)-3-Fluoro-4-[(3-oxo-3,4-dihydro-2H-pyrido[3,2-b]][1,4]oxazin-6-ylmethyl)-amino]cyclohexanecarboxylic acid (6-methoxy-[1,5]naphthyridin-4-yl)-amide (1R,3S,4R)-3-Fluoro-4-[(7-fluoro-3-oxo-3,4-dihydro-2H-pyrido[3,2-b][1,4]thiazin-6-ylmethyl)aminol-cyclohexanecarboxylic acid (6-methoxy-[1.5]naphthyridin-4-yl)-amide1-Hydroxy-t-4-[(3exe-3,4-dihydro-2H-pyrido[3,2-b][1,4]exazin-6-ylmethyl)-amino]-c-cyclohexanecarboxylic acid (3-methyl-1,2,3,4-tetrahydro-quinoxalin-5-yl)-amide 1-Hydroxy-t-4-[(3-oxo-3,4-dihydro-2Hpyrido[3,2-b][1,4]thiazin-6-ylmethyl)-amino]-r-cyclohexanecarboxylic acid (3-methoxyquinoxalin-5-yl)-amide-t-4-[(2,3-Dihydro-[1,4]dioxino[2,3-c]pyridin-7-ylmethyl)-amino]-1-hydroxyc-cyclohexanecarboxylic acid (2-methyl-quinolin-8-yl)-amide; t-4-[(2,3-Dihydro-[1,4]dioxino[2,3c]pyridin-7-ylmethyl)-amino]-cyclohexanecarboxylic acid (2-methyl-quinolin-8-yl)-amide; (1R,3S,4R)-4-[(2,3-Dihydro-[1,4]dioxino[2,3-c]pyridin-7-ylmethyl)-amino]-3-hydroxycyclohexanecarboxylic acid (2-cyano-quinolin-8-yl)-amide; t-4-[(2,3-Dihydro-[1,4]dioxino[2,3-c]pyridin-7-ylmethyl)-amino]-1-hydroxy-rcyclohexanecarboxylic acid (2-cyano-quinolin-8-yl)-amide; (1R,3R,4R)-4-[(2,3-Dihydro-[1,4]dioxino[2,3-c]pyridin-7-ylmethyl)-amino]-3-methoxycyclohexanecarboxylic acid (2-methyl-quinolin-8-yl)-amide; 1-Hydroxy-t-4-[(3-oxo-3,4-dihydro-2H-pyrido[3,2-b][1,4]thiazin-6-ylmethyl)-amino]-r-cyclohexanecarboxylic acid (6-cyano-quinolin-4-yl)-amide-t-4-[(2,3-Dihydro-[1,4]dioxino[2,3-c]pyridin-7-ylmethyl)-amino]-1-hydroxy-rcyclohexanecarboxylic acid (3-methoxy-quinoxalin-5-yl)-amide; and t-4-[(2,3-Dihydro[1,4]dioxino[2,3-c]pyridin-7-ylmethyl)amino]-1-hydroxy-N-(3-methyl-5-quinoxalinyl)-rcyclohexanecarboxamide; or a pharmaceutically acceptable derivative salt and/or N-oxide thereof.

- 25. (Currently amended) A method of treatment of bacterial infections in mammals, particularly in man, which method comprises the administration to a mammal in need of such treatment an effective amount of a compound according to claim 16.
- 26. (Previously presented) A pharmaceutical composition comprising a compound according to claim 16, and a pharmaceutically acceptable carrier.
- 27. (Currently amended) A process for preparing a compound according to claim 16, which process comprises reacting a compound of formula (IV) with a compound of formula (V):

$$(IV) \qquad Y(CH_2)_n \xrightarrow{Z^4} Q^1$$

$$R^{V} \xrightarrow{Z^1} Z^2$$

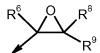
$$(V) \qquad (V)$$

wherein n is as defined in formula (I); $Z^{1'}$, $Z^{2'}$, $Z^{3'}R^{1'}$ and $R^{3'}$ are Z^{1} , Z^{2} , Z^{3} , R^{1} and R^{3} as defined in formula (I) or groups convertible thereto; Z^{4} , Z^{5} , R^{V} and R^{W} are as defined in formula (I);

Q¹ is NR²'R⁴' or a group convertible thereto wherein R²' and R⁴' are R² and R⁴ as defined in formula (I) or groups convertible thereto and Q² is H or R³' or Q¹ and Q² together form an optionally protected oxo group;

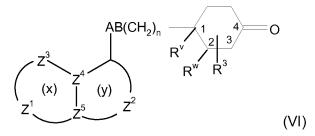
and X and Y may be the following combinations:

- (i) one of X and Y is CO₂R^y and the other is CH₂CO₂R^x;
- (ii) X is CHR^6R^7 and Y is $C(=0)R^9$;
- (iii) X is $CR^7 = PR^Z_3$ and Y is $C(=0)R^9$;
- (iv) X is $C(=0)R^7$ and Y is $CR^9=PR^2_3$;
- (v) one of Y and X is COW and the other is NHR¹¹, NCO or NR11'COW;
- (vi) X is NHR^{11'} and Y is $C(=0)R^8$ or X is $C(=0)R^6$ and Y is NHR^{11'};
- (vii) X is NHR^{11} and Y is CR^8R^9W ;
- (viii) X is W or OH and Y is CH_2OH ;
- (ix) X is NHR^{11'} and Y is SO_2W ;
- one of X and Y is $(CH_2)_p$ -W and the other is $(CH_2)_q$ NHR^{11'}, $(CH_2)_q$ OH, $(CH_2)_q$ SH or $(CH_2)_q$ SCOR^X where p+q=1;
- (xi) one of X and Y is OH and the other is $-CH=N_2$;
- (xii) X is NCO and Y is OH or NH_2 ;
- (xiii) X is CR⁶R⁷SO₂W, A'COW, CR⁶=CH₂ or oxirane and Y is NHR²';
- (xiv) Xis W and Y is CONHR¹¹ or OCONH₂
- (xv) X is W and Y is -C \equiv CH followed by hydrogenation of the intermediate $-C\equiv$ C- group; in which W is a leaving group, e.g. halo, methanesulphonyloxy, trifluoromethanesulphonyloxy or imidazolyl; R^X and R^Y are (C₁₋₆)alkyl; R^Z is aryl or (C₁₋₆)alkyl; A' and NR^{11'} are A and NR¹¹ as defined in formula (I), or groups convertible thereto; and oxirane is:



wherein R^6 , R^8 and R^9 are as defined in formula (I); and thereafter optionally or as necessary converting Q^1 and Q^2 to $NR^2'R^4'$; converting A', Z^1' , Z^2' , Z^3' , R^1' , R^2' , R^3' , R^4' and NR^{11}' to A, Z^1 , Z^2 , Z^3 , R^1 , R^2 , R^3 , R^4 and NR^{11}' ; converting A-B to other A-B, interconverting R^V , R^W , R^1 , R^2 , R^3 and/or R^4 , and/or forming a pharmaceutically acceptable derivative salt and/or N-oxide thereof.

28. (Previously presented) A compound of formula (VI):



wherein the variables are as described for formula (I).

29. (Previously presented) A compound of formula (VII):

$$\begin{array}{c|c}
AB(CH_2)_n & & & \\
\hline
Z^3 & & & \\
(x) & & & \\
Z^1 & & & & \\
\end{array}$$

$$\begin{array}{c|c}
AB(CH_2)_n & & & \\
R^v & & & \\
\hline
R^w & & & \\
\end{array}$$

$$\begin{array}{c|c}
R^v & & \\
R^w & & \\
\end{array}$$

wherein the variables are as described for formula (I).

- 30. (New) A method of treatment of bacterial infections in mammals, which method comprises the administration to a mammal in need of such treatment an effective amount of a compound according to claim 24.
- 31. (New) A pharmaceutical composition comprising a compound according to claim 24, and a pharmaceutically acceptable carrier.